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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/048,113	05/06/2002	Hans-Ludwig Althaus	56881 (45107)	1570
7590	11/05/2003		EXAMINER	
Peter F Corless Edwards & Angell PO Box 9169 Boston, MA 02209			TRAN, TAN N	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/048,113

Applicant(s)

ALTHAUS ET AL.

Examiner

TAN N TRAN

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 08/20/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 27-48 is/are pending in the application.
- 4a) Of the above claim(s) 44-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-43 and 48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a light-sensitive sensor is provided, which is formed in the element or on the substrate of the auxiliary carrier as recited in claim 27, the recess in the auxiliary carrier being covered with a thin covering layer as recited in claims 48 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 27-43,48 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Art Unit: 2826

The specification does not disclose a light-sensitive sensor is provided, which is formed in the element or on the substrate of the auxiliary carrier as recited in claim 27. Note lines 4-7, page 5 of the brief summary of the invention only disclose a light-sensitive sensor is provided which is formed in the element or on the substrate of the auxiliary carrier, but the detailed description of the invention does not show a light-sensitive sensor is provided which is formed in the element or on the substrate of the auxiliary carrier as recited in claim 27.

### **Claim Rejections - 35 USC § 112**

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 27-43,48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 27, lines 8,9 “a light-sensitive sensor is provided, which is formed on/in the element or on/in the substrate of the auxiliary carrier” is indefinite because the expression “or” renders the claim alternative and the expression “or/in” renders the claim alternative.

### **Claim Rejections - 35 USC § 103**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-43,48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (4,967,241) in view of Pimpinela et al. (EP-0413489).

With regard to claims 27,31,38,42, Kinoshita et al. discloses optoelectronic component comprising a light-emitting element 40 and a substrate 48 functions as an auxiliary carrier having the transparent and thermal cladding layer 46 made of  $\text{Al}_x\text{Ga}_{1-x}\text{As}$  wherein the substrate 48 is coupled to the light emitting element 40, and a recess 48A of substrate 48 is provided through which the light passes; and wherein the p-n junction formed by a p-type region 50 and n-type substrate 48 serve as a light-sensitive sensor is provided, which is formed on the light emitting element 40, and the sensor is arranged in a region in which the optical arrangement 20 which focuses. (Note lines 11-16, column 2, Figs. 1,2 of Kinoshita et al.).

Kinoshita et al. does not disclose a system carrier supports the element, for supporting or mounting the component, and an optical arrangement is provided in the optical axis of the component.

However, Pimpinela et al. discloses a system carrier 10 supports the LED, detector element 23, and an optical arrangement 50 is provided in the optical axis of the optoelectronic component. (Note figs. 2,6 of Pimpinela et al.).

Therefore, it would have been obvious to one of ordinary skill in the art to form the Kinoshita et al.'s device having a system carrier supports the LED, detector element, and an optical arrangement is provided in the optical axis of the optoelectronic component such as taught by Pimpinela et al. in order to support the lens of the optoelectronic component.

Art Unit: 2826

With regard to claim 28, Kinoshita et al. discloses the substrate 48 functions as the auxiliary carrier has an electrical component by means of which it is electrically connected to the LED element 23. (Note Fig. 2 of Kinoshita et al.).

With regard to claim 29, Kinoshita et al. and Pimpinela et al. disclose all the claimed subject matter except for the auxiliary carrier is arranged between the system carrier<sup>and the element ;</sup> and the auxiliary carrier and the element are mechanically connected in a substantially planar fashion. However, it would have been obvious to one of ordinary skill in the art to form the auxiliary carrier is arranged between the system carrier<sup>and the element ;</sup> and the auxiliary carrier and the element are mechanically connected in a substantially planar fashion in order to support the lens of the optoelectronic component.

With regard to claim 30, Kinoshita et al. and Pimpinela et al. disclose all the claimed subject matter except for the system carrier composed of a non-transparent material is provided with an opening through which light passes. However, it would have been obvious to one of ordinary skill in the art to form the system carrier composed of a non-transparent material is provided with an opening through which light passes in order to decrease the transmittance of the visual light through the substrate.

With regard to claim 32, Pimpinela et al. discloses the optical arrangement 50 is fitted inside the opening of the system carrier 10. (Note fig. 6 of Pimpinela et al.).

With regard to claims 33,34, Pimpinela et al. discloses the optical arrangement 50 is formed as a lens. (Note fig. 6 of Pimpinela et al.). Kinoshita et al. and Pimpinela et al. disclose all claimed invention, except the optical arrangement is formed as a transparent platelet. However, although Kinoshita et al. and Pimpinela et al. do not teach exact the type of the

Art Unit: 2826

optical arrangement as that claimed by Applicant, the type differences are considered obvious design choices and are not patentable unless unobvious or expected results are obtained from these changes. It appears that these changes produce no functional differences and therefore would have been obvious. Note in re Leshin, 125 USPQ 416.

With regard to claim 35, Pimpinela et al. discloses an adhesive agent is provided, by means of which the optical arrangement 50 is fixed inside the opening of the system carrier 10. (Note lines 24-28, column 8, fig. 6 of Pimpinela et al.).

With regard to claim 36, Pimpinela et al. discloses in relation to the optical axis of the component, predetermined support points or support edges for the self-adjusting alignment of the optical arrangement 50 are provided on the lateral faces. (Note fig. 6 of Pimpinela et al.).

With regard to claim 37, Pimpinela et al. discloses the support points or support edges are arranged on the outermost edges, facing away from the LED element 23 of the recess. (Note fig. 6 of Pimpinela et al.).

With regard to claim 39, Kinoshita et al. discloses the p-n junction formed by a p-type region 50 and n-type substrate 48 serve as a light-sensitive sensor is provided, which is formed on the light emitting element 40 directly. (Note Fig. 2 of Kinoshita et al.).

With regard to claim 42, Kinoshita et al. and Pimpinela et al. disclose all the claimed subject matter except for the system carrier, with the auxiliary carrier attached thereto, is molded at least in some areas with molding mass. However, it would have been obvious to one of ordinary skill in the art to form the system carrier, with the auxiliary carrier attached thereto, is molded at least in some areas with molding mass in order to couple the LED element to system carrier. Note fig. 2 of Pimpinela et al. is cited to support for the well-know position.

Art Unit: 2826

With regard to claim 48, Kinoshita et al. discloses the recess in the substrate 48 serves as the auxiliary carrier being covered with a thin covering layer 46. (Note Fig. 2 of Kinoshita et al.).

### **Conclusion**

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tan Tran whose telephone number is (703) 305-3362. The examiner can normally be reached on M-F 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TT

Oct 2003

  
**Minhloan Tran**  
**Primary Examiner**  
**Art Unit 2826**